treated with statins tend to present less (44%) asymptomatic PAD than other patients (OR 0.56; 95%CI 0.30–1.05;p = 0.07). Seventy-four percent of patients were aware of their CV risk, and smoking, high cholesterol, overweight and hypertension were identified by patients as the most important factors increasing the risk on CV disease. **CONCLUSIONS:** Asymptomatic PAD in subjects without CVD but at moderate risk was less prevalent in Belgium than in the other European countries, but was still significantly correlated with classical CVD risk factors, especially smoking, hypertension, lipid profile and age. It could be advisable to identify patients with such risk factors through ABI measurement and treat them accordingly as high risk individuals.

PCV9

CARDIOVASCULAR EVENT REDUCTION AFTER TREATMENT WITH SIMVASTATIN PLUS NIACIN EXTENDED-RELEASE COMBINATION THERAPY VERSUS GENERIC SIMVASTATIN THERAPY FROM A MANAGED CARE ORGANIZATION'S PERSPECTIVE IN THE UNITED STATES

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OBJECTIVES: To compare 5-year cardiovascular (CV) event reduction between patients treated with generic simvastatin therapy (ST) and niacin extended-release [NER] + simvastatin (NER/S) combination therapy among primary and secondary risk patients from a managed care organization's perspective. **METHODS:** Two hypothetical managed care formularies, each consisting of 1,000,000 primary and secondary risk patients were modeled over a five year time horizon: a current formulary where all patients were treated with ST and a revised formulary where all the patients were treated with NER/S. Study patients with sub-optimal LDL-C, HDL-C, and/or TG at baseline were sampled from the HealthCore Integrated Research Database between January 1, 2000 and February 28, 2005. Package insert efficacy of lipid medications in each formulary was applied to the study population. Post-treatment lipid values were evaluated according to U.S. lipid guidelines. Incremental reduction in CV events [myocardial infarction (MI), peripheral vascular disease (PVD), and stroke] among NER/S treated patients versus ST patients was estimated. Market share of NER/S over five years was assumed to be 1.5%. **RESULTS:** A total of 529,620 study patients were identified, having a mean age of 54 ± 11 years, 45% female, and Deyo-Chrlson comorbidity score of 0.38 ± 0.62. Patients treated with NER/S therapy demonstrated an incremental reduction of 1,515 CV events (27,218 vs. 28,733) over 5 years as compared to ST. Incremental reduction in stroke events in the same period were found to be 564 (10,144 vs. 10,708), MI events reduced by 631 (11,341 vs. 11,972), while PVD events reduced by 319 (5,733 vs. 6,052). **CONCLUSIONS:** Treatment with NER/S among primary and secondary risk dyslipidemia patients was associated with 5-year reductions in CV events compared to ST treated patients. Further studies assessing the addition of NER to ST or switching ST treated patients to NER/S therapy on clinical and economic outcomes are needed.

PCV10

A MARGINAL STRUCTURAL MODEL TO COMPARE THE EFFECTIVENESS OF INDIVIDUAL ANGIOTENSIN RECEPTOR BLOCKERS IN VETERANS WITH CHRONIC HEART FAILURE

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OBJECTIVES: There is little evidence to compare effectiveness of individual Angiotensin Receptor Blockers (ARBs) in patients with chronic heart failure (CHF). This study compared four ARBs in reducing risk of mortality in everyday clinical practice. **METHODS:** A retrospective analysis was conducted on a national sample of patients diagnosed with CHF from October 1, 1996 to September 30, 2002 identified from VA Electronic Medical Records, with supplemental clinical data obtained from chart review. After excluding patients with exposure to ARBs within the previous six months, four treatment groups were defined based on initial use of candesartan, valsartan, losartan, and irbesartan between the index date (October 1, 2000) and the study end date (September 30, 2002). Time to death was measured concurrently during that period. A marginal structural model (MSM) controlled for sociodemographic factors, comorbidities, co medications, disease severity (left ventricular ejection fraction), and potential time-varying confounding affected by previous treatment (hospitalization). Propensity scores derived from a multinomial logistic regression were used as inverse probability of treatment weights (IPTW) in a generalized estimating equation to estimate causal effects. Results of MSM were compared to estimates obtained from traditional Cox regression models **RESULTS:** Among the 1,536 patients identified on ARB therapy, irbesartan was most frequently used (55.21%), followed by losartan (21.74%), candesartan(15.23%) and valsartan (7.81%). Adjusted hazard ratios from Cox regression found Candesartan to reduce risk of mortality compared with Losartan (HR = 0.60, 95% CI 0.37–0.96). After adjusting for time-varying hospitalization in MSM utilizing IPTW, candesartan was found not significant (OR = 0.79, 95% CI = 0.42–1.50). Irbesartan and valsartan were found to have similar effectiveness compared to losartan in both analyses. **CONCLUSIONS:** Effectiveness of ARBs in reducing mortality did not differ in patients with CHF in everyday clinical practice. Marginal structural models can be used to compare the effectiveness of multiple treatment groups and may improve risk-adjustment.

PCV11

UNDERSTANDING THE IMPACT OF STATIN TITRATION; A MODELLING APPROACH

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OBJECTIVES: Statin therapy has established cardiovascular benefits. Clinical guidelines set target cholesterol levels for populations at different risk levels. Treatment strategies include initial high-dose or conventional-dose statin followed by titration of patients failing to reach target. Empirical data on dose titration are scarce, but this model simulates potential cholesterol reductions for different populations, therapies and titration steps. **METHODS:** Patient-level cholesterol values before statin therapy, obtained from a large UK primary care database, were grouped into four patient groups in 0.5 mmol/L bands from < 1–10+: 1) no CVD or diabetes; 2) CVD, no diabetes; 3) diabetes, no CVD; 4) diabetes and CVD. Dose efficacy studies enabled calculation of percentage reductions in cholesterol from specified therapies in each band, variance, and the corresponding probability of reaching a specified target. For patients failing to reach target, the next higher statin dose was applied to the starting cholesterol value. Mean cholesterol values of those above/below target were calculated and inserted into a lifetime, cardiovascular outcomes, Excel-based model using Framingham risk equations and baseline parameters from statin clinical trials. **RESULTS:** For the 4 population groups, with a mean cholesterol reduction of 30% (SD 10%), proportions reaching a 4 mmol/L target in one step were: 1) 24%; 2) 35%; 3) 40%; and 4) 45%. Patients above target had two further titrations, each higher-dose therapy reducing cholesterol by a further 5%, with proportions increasing to 49%, 63%, 68% and 71% respectively. Based on these proportions and using Framingham risk equations, corresponding 10-year CVD event rates were estimated as 27%, 42%, 29% and 55% for one-step therapy, and 23%, 39%, 26% and 52% following titration. **CONCLUSIONS:** Titration models provide insights about the impact of different therapy strategies on cardiovascular outcomes for different population groups. The addition of cost data enables the cost-effectiveness of competing statin strategies to be estimated.

PCV12

WHAT IS THE IMPACT OF ARBS VERSUS OTHER ANTI-HYPERTENSIVES ON CV-EVENTS IN HYPERTENSIVE PATIENTS?

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OBJECTIVES: To analyze the percentage of patients treated with anti-hypertensive medication in mono or dual therapy that experienced a CV event. **METHODS:** A retrospective study of the Southwestern Ontario database which contains chart-abstracted information from primary health care facilities in Ontario, Canada was performed. Patients with hypertension were identified as those with a recorded Blood Pressure (BP) exceeding 140/90 mmHg, chart entry of a diagnosis of hypertension, or use of anti-hypertensive medication. Patients treated either in mono or dual therapy with angiotensin II receptor blockers (ARBs), ACE Inhibitors (ACEIs) and Calcium Channel Blockers (CCBs) were included. The number of patients who experienced at least one CV event from 2003 to 2008 was recorded. CV events are stroke, myocardial infarction, congestive heart failure, peripheral vascular disease, coronary heart disease, atrial fibrillation or transient cerebral ischemic attack. Due to the well known comparable safety profile of the compounds, a safety analysis was not performed. **RESULTS:** A total of 53,064 patients treated with an ARB, ACEI or CCB in mono or dual therapy were identified. The proportions of treated patients who experienced a CV event were 4.3% on ARBs compared to 7.0% on ACEIs and 11.0% on CCBs. These differences were statistically significant ($p < 0.001$). Within the ARB class, the proportions of treated patients who experienced a CV event were 3.0% on irbesartan compared to 4.6% on losartan, 5.0% on valsartan and 5.0% on candesartan. These differences were statistically significant ($p < 0.02$). **CONCLUSIONS:** In patients treated in mono or dual therapy, those treated with an ARB experienced significantly fewer CV events than those treated with an ACEI or a CCB. Amongst the ARB-treated patients, those treated with irbesartan as part of their therapy experienced significantly less CV events than those treated with another ARB.

PCV13

EFFECTIVENESS OF ATORVASTATIN, PRAVASTATIN AND SIMVASTATIN IN THE REDUCTION OF CARDIOVASCULAR EVENTS: AN INDIRECT COMPARISON META-ANALYSIS

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OBJECTIVES: To compare the effectiveness of the most commonly prescribed statins in Brazil for the prevention of cardiovascular CV events, using indirect comparison meta-analysis. **METHODS:** A systematic review of the literature was conducted. Medline and the Cochrane Controlled Trials Register were searched for clinical trials that compared Pravastatin 40 mg, Simvastatin 40 mg or Atorvastatin 10 mg against control (placebo or usual care), for primary and secondary CV prevention. Full-texts of relevant abstracts were retrieved and evaluated in duplicate and independently. Fixed-effect models were used for direct statin versus control comparisons, and the methodology described by Bucher et al. (1997) was used to derive indirect comparisons between statins. **RESULTS:** Eleven studies comparing Pravastatin 40 mg